ENGINEERING NEWS-RECORD

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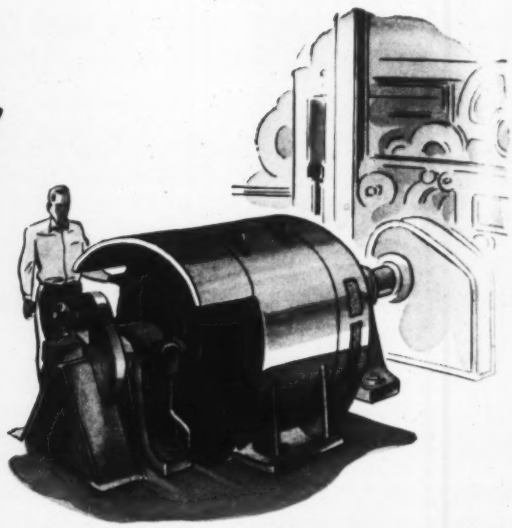
Rugged, barren terrain of Nevada is the scene as construction operations begin on Davis Dam

"What! Stop a 30" Calender Roll in Less than 14" of Roll Travel!"

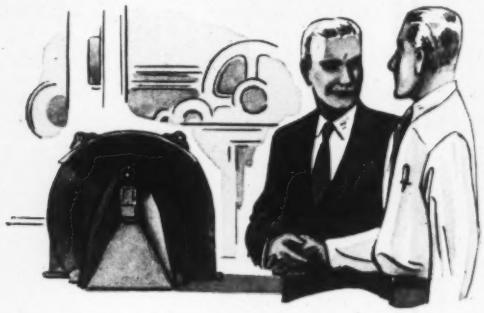


"Right! And besides that emergency stop, give us 10 to 1 speed range on the motor and hold speed *close*. The torque characteristic of our calender requires that the motor have high overload capacity at low speeds without overheating. And because of operating conditions, we want sparkless commutation too!"

B-b-u-t-t-t... "No buts" said Mr. Rubber Mill Man, "that's *exactly* what we need. You see, we're experimenting with new materials on our rolls, and since we can't *pre*-determine best roll speeds for them, we must have a drive that'll give us complete *range* of speeds, and at the same time, complete *protection* for our workers".

"In A Nutshell, you and the control engineers must design a calender drive system that'll give us *higher* and *lower* calender speeds, *closer* speed regulation and *sudden* emergency stopping — *all three!*" Well, we set up meetings between the control and motor designers to plan a *coordinated* design that would meet the needs.

An Automatic Speed Control incorporating both our m-g set and "Regulex" exciter was designed to hold selected speed within close limits. And, after a careful analysis of required load characteristics, we designed a 400 hp d-c motor of low inertia for quick stopping . . . and which also provided speed range from 25 to 250 rpm.



Remember That 14" Stop? After the system went in, we stopped the rolls first at 18" . . . easy. Then at 14" . . . at 12" . . . at 9"! And we probably would have stopped 'em even shorter but for possible danger of too sudden stops to the calender gear system. And commutation? After 6 months, the operators say it's perfect. A 2048

Moral: Every time Allis-Chalmers discovers new ways of solving *special* motor problems, like this one, it also learns how to build better *standard* motors for you! Watch for these new and better motors from A-C. ALLIS-CHALMERS, MILWAUKEE 1, WISCONSIN.

Wait 'til you see the NEW

ALLIS-CHALMERS MOTORS!

News of the Week

ENGINEERING NEWS-RECORD • JUNE 6, 1946 • VOLUME 136 • NUMBER 23

CPA orders two-thirds cut in building authorizations

Drop in production due to strike interference given as reason for action—Housing agency also cuts its quota of authorizations under its HH priorities

Seeking to bring construction authorizations into balance with the strike-cut supply of building materials, the Civilian Production Administration May 30 ordered its field offices to reduce their dollar value of authorizations by two-thirds for the next 45 days.

Private engineering construction, despite the CPA's earlier curtailment order on non-housing work, had already reached a steady pace of about $80,000,000 worth of contracts awarded weekly, according to recent *Engineering News-Record* surveys (May 23, vol. p. 813).

In a parallel move to insure channelling of scarce materials into housing and to control prices of finished homes, the National Housing Agency announced that its quota of authorizations for the second quarter would be limited to about 12,500 weekly—as compared to 35,000 up to this time—and revised its regulations to require homebuilders to submit detailed plans and specifications upon application for priorities, and to permit inspection while the housing is under construction.

Strikes cause CPA action

CPA administrator John D. Small said that his agency's reduction order was dictated by the large volume of construction already under way or authorized and the impact of strikes on production of building materials. The effect of the reduction, and the availability of materials will be reviewed at the end of the 45-day period to determine if it may then be possible to relax the new criteria for authorization for non-housing construction.

The two-thirds reduction is to be in comparison with the rate of authorizations in the CPA construction districts (*ENR* April 11, vol. p. 513) for the two-week period ending May 23. To prevent inequalities arising from any arbitrary ruling, regional directors will be permited to take into account exceptional circumstances and to vary the reduction rates among districts if necessary. The directors, however, must maintain the two-thirds slow-down for their regions.

In the absence of unusual circumstances involving "exceedingly severe" hardship, only projects which fall within the following conditions may be approved during the 45-day period:

(1) Projects vitally necessary for public health or safety; (2) projects which will increase production of critical products; (3) products essential to increase food production or preservation; (4) projects that will provide minimum community facilities for new residential areas developed as part of the veterans' emergency housing program; (5) projects providing urgently needed veterans educational facilities; (6) essential and non-deferrable maintenance and repairs, and projects which "will have no impact whatsoever" on the housing program.

Materials situation improves

Commenting on the materials situa-

(*Continued on p. 6*)

Shortages mount as building costs rise

In all sections of the country shortages of construction manpower and materials continue to exert an inflationary effect on building costs. As a consequence, bids on many important projects are being rejected by states and municipalities, as indicated by the following typical items in the news.

Ohio — Pointing out that manpower and materials are so scarce at present that the bids on the state's welfare and road program run anywhere from 25 to 100 per cent over the original estimates, Gov. Frank J. Lausche said that the program envisaged last year when the Ohio Legislature appropriated about $79 million from its surplus for public works, will require an additional appropriation almost as large as the original.

The state highway department, which was granted $16 million out of the surplus to match a like amount of federal funds, hopes to get about $30,000,000 in road improvements under contract by Sept. 1, but now states that the road mileage originally planned is going to shrink because of increased costs.

Oregon —Permission to erect a projected $3,500,000 office building in Portland for the U. S. Department of Agriculture has been withheld by the construction review committee of the Oregon district Civilian Production Administration. Principal reason for the rejection was the present shortage of commercial and industrial building materials.

The Oregon state board of control rejected a $704,810 bid by George Isaackson of Portland on a contract for construction of six employes' cottages and a patients' cottage for the state home for feeble minded. Isaackson's was the only bid received on the project and was more than 50 per cent above estimates.

Illinois — W. W. Polk, chief highway engineer says:

"Last October, at the end of the war, we went over our program, and we revamped it again the first of the year. Right now we are snagged only on letting contracts for bridges, where the costs are even on a higher scale, and the prices have shown a greater increase."

St. Louis, Mo. — This area is being flooded with black market lumber, some of it so green the "sap practically is running out of it" building material dealers and the local branch of the Office of Price Administration have stated.

"The great tragedy of this 'racket' is not so much the inflated cost of this housing material, but the loss of investment that will come when this green wood starts to buckle," one OPA official said.

NEWS IN BRIEF

In telegraphic form, here are latest news developments on the engineering and construction front during the week.

Construction—The Borden Co., of *Chicago, Ill.*, announced it will build a $1,250,000 plant at *Kankakee* to process vegetable products for the pharmaceutical industry. . . . Armstrong Cork Co. began construction of a $4,000,000 fiberboard plant at *Macon, Ga.* . . . Trico Products Co., automobile parts manufacturer, will build a $4,000,000 addition to its *Buffalo, N. Y.*, plant. . . . Monsanto Chemical Co. plans a $3,000,000 plant at *Belleville, Ill.*, for manufacture of soap products. . . . The Shawinigan Water and Power Co. announced plans for a 12-story, block-square office building in *Montreal, Canada.* . . . Aluminum Company of America made public plans for a $30,000,000 sheet and plate mill at *Davenport, Iowa.*

Highways—The *Maryland* State Roads Commission has awarded a $1,307,000 contract for construction of a ferry terminal at *Matapeake*, Queen Anne's County. . . . *Kansas* awarded contracts totalling $1,328,000 for construction of 203 miles of roads. . . . *Texas* awarded contracts totalling $2,678,000 on 23 projects in the central sector. . . . *Arizona* state highway department officials revealed they will budget a road program of more than $8,000,000 for the fiscal year 1946-47. . . . *Pennsylvania* cities, boroughs, towns and townships received $1,062,000 for highway maintenance and construction. . . . *Virginia* county boards of supervisors recently closed public discussions of the states $15,724,000 secondary road program by approving the projected work. . . . The *Ohio* State Board of Control released $14,930,000 to the highway department to finance road construction projects. . . . *Arizona* approved six new road contracts, aggregating $1,229,985. . . . *St. Louis* and *St. Louis County, Mo.* will spend about $16,000,000 in the next four years on highway work.

Sewage Disposal, Water Supply—The Carnegie-Illinois Steel Corp. notified the city of *Gary, Ind.*, that it would install a $3,500,000 sewer system to carry industrial waste and sewage to the Gary sanitary district plant for treatment. . . . *Collinsville, Ill.*, will issue $350,000 in revenue bonds to finance extensions of its combined water and sewerage systems. . . . The City of *Ridgely, Tenn.*, voted to repurchase—at $26,190—the municipal water supply system which it sold to private operators in 1938 for $10,000.

Bond Issues—*McAlester, Okla.*, approved a $1,328,000 bond issue for city improvements that will include a $45,000 sewage disposal plant. . . . *Seattle, Wash.*, will vote Nov. 5 on a $10,000,000 issue to expand county hospitals. . . . *Joliet, Ill.*, considered placing a $1,000,000 issue on its fall election ballot to finance a new jail, courthouse, and other structures.

Housing—Washington University, *St. Louis, Mo.*, began construction of a 70-family apartment structure on its grounds to house faculty members. . . . Massachusetts planned a 514-family project in *Boston's* South End. . . . The University of *Illinois* renewed applications to FPHA for authorization to build 50 homes for faculty members on its campus.

Miscellany—*Cleveland, Ohio*, adopted a $25,000,000 overall transit unification plan submitted by the firm of DeLeuw, Cather and Co. The plan calls for a crosstown rapid transit system and a downtown subway, and integration of other transit means. . . . *Philadelphia* will spend $1,466,720 for improvements to 43 recreation centers. . . . Army engineers have been directed to prepare plans and specifications for a new Veterans Administration hospital at *Wilmington, Del.*, to cost about $3,300,000. . . . *Los Angeles, Calif.*, purchased 63 acres for a new water reservoir in the Baldwin Hills section.

Surplus machinery moves too slowly, says AED

So concerned are members of the Associated Equipment Distributors over the slowness with which surplus construction machinery is moving into the hands of legitimate distributors that President F. B. McBath, of Portland, Ore., has requested the attendance of the entire AED Committee on Disposal of Government Surplus for a special 2-day series of conferences. The session will be held prior to the organization's semi-annual board of directors meeting to be held at the Edgewater Beach Hotel in Chicago on June 17, 18 and 19.

Calendar of Meetings

NATIONAL

International City Managers' Association, annual meeting, Montreal, Canada, June 16-21.

Society for the Promotion of Engineering Education, annual convention, Jefferson Hotel, St. Louis, Mo., June 22.

American Society for Testing Materials, 49th annual meeting, Hotel Statler, Buffalo, N. Y., June 24-28.

Society for Experimental Stress Analysis, spring meeting, Hotel Statler, Buffalo, N. Y., June 24-26.

Chinese Institute of Engineers, America Section, annual convention, Hotel New Yorker, New York, N. Y., June 29-July 1.

Associated General Contractors of America, Washington, D. C., spring governing and advisory board meeting, Sherley-Savoy Hotel, Denver, Colo., June 29-July 2.

American Society of Civil Engineers, 1946 summer convention, Davenport Hotel, Spokane, Wash., July 17-20.

REGIONAL

California Sewage Works Association, 1946 convention, Monterey, Calif., June 9-11.

Third Hydraulics Conference, State University of Iowa, Iowa City, Iowa, June 10-12.

Western Association of State Highway Officials, annual meeting, Salt Lake City, Utah, June 10-11.

North Carolina Waterworks Operators' Association, annual operator's training school, Chapel Hill, N. C., June 10-15.

New England Traffic Engineering Conference, third annual meeting, Massachusetts Institute of Technology, Cambridge, Mass., June 11-13.

Ohio Conference on Sewage Treatment, Mayflower Hotel, Akron, Ohio, June 20-21.

Upper Peninsula Road Builders' Association, annual meeting, Houghton, Mich., June 24-25.

New Jersey Section, American Water Works Association, summer meeting, Little Falls, N. J., June 28.

Ninth Annual Short Course for water and sewage personnel, Louisiana State University, Baton Rouge, La., July 25-27.

American Shore and Beach Preservation Association, summer meeting, The Breakers, Cedar Point, Ohio, Aug. 15-17.

Phoenix, Ariz.—The Southern Pacific Railroad, to meet the increasing freight-handling demands, has launched a construction program at its yards here, which will mean an investment of more than $300,000 this year and a total expenditure of more than $500,000.

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Railroads suffer bridge damage from New York and Penna. floods

Erie R. R. worst hit with three bridges out at Corning, N. Y.—Highways flooded with spans out at Athens and Williamsport, Pa.

Floods on the upper Susquehanna watershed in the southern tier counties of "upstate" New York and in east-central Pennsylvania last week took at least 18 lives and caused serious damage to highway and railway roadbeds and structures. The cities of Elmira, N. Y., and Williamsport and Sunbury, Pa., as well as many others in both states, were badly flooded as rivers rose and dikes failed. Damages to livestock and farm lands will run the total cost of the flood to many millions of dollars.

Major precipitation started May 25, after weeks of rain had left the ground soaked and streams full. According to the U. S. Weather Bureau, heaviest precipitation centered over Sunbury and Renovo, Pa. with 6.86 in. of rain falling in 48 hours of which 4.97 in. accured in one 12-hr. period.

Hardest hit by the high water was the area from the West Branch of the Susquehanna north to and including the Chemung River basin in New York and along the North Branch of the Susquehanna from the mouth of the Chemung River southward to Sunbury, Pa. The Chemung River at Corning, N. Y., reached a crest of 24 ft. on the 28th, nearly 4 ft. above the previous maximum in July, 1935. Pine Creek, which drains into the West Branch, reached a crest of 15 ft. on the 28th, 3.6 feet above the record flood of March 1936.

The North Branch at Towanda crested at 25.1 ft. on the 29th, 0.1 ft. above the record flood of March 1936. The crest of 32 ft. at Wilkes Barre, Pa., was 1.1 ft. below the 1936 flood and the Sunbury crest was 3.8 ft. below the 1936 flood. The Juniata River remained at relatively low stages and consequently the flood crest in the North Branch flattened out considerably before reaching Harrisburg, where the crest was 8.5 ft. below the 1936 flood.

Bridges out

Major bridge loss is the Chemung River crossing of the Erie R. R. just east of Corning, N. Y. One of the river piers failed dropping two 150-ft., double-track through-truss spans into the river. Loaded cars of coal, run on the bridge to help stabilize the structure, went down with the bridge. The third 150-ft. span of the bridge is damaged, probably beyond repair, from twisting caused by connections of rails and car couplers.

Just east of the Chemung crossing, a tributary creek cut through a fill back of an old stone abutment, causing its failure and dropping a 103-ft. double-track plate girder into twisted scrap. Both of these bridges were to be eliminated by relocation of the Erie R. R. through Corning in a program to take the railroad tracks out of the business district of the town and eliminate 17 highway crossings (ENR, May 23, vol. p. 827).

Near East Corning the main line tracks of both the Erie and Delaware, Lackawanna and Western R. R. were out over a small creek but this was repaired by Friday. Erie trains now are operating over D. L. & W. tracks around Corning while a single-track trestle is being constructed over the Chemung.

The north-south line of the New York Central through Corning was out of service for several days due to washed tracks and weakened bridges.

The Washington-Buffalo line of the Pennsylvania Railroad had a major loss at the Lycoming Creek bridge at Williamsport where a weakened approach fill gave way, wrecking a heavy locomotive.

Pennsylvania damage

Pennsylvania Department of Highways lost 40 drainage structures of all types, the major one being a 130 ft. span over the Chemung River at Athens. Major slides, flooding and washouts blocked many Pennsylvania highways for several hours.

One pier settled under a concrete arch bridge of three 75-spans in the city of Williamsport, breaking two of the arches and resulting probably in complete loss of the bridge.

Largest monetary loss undoubtedly was due to flooding of homes, business houses and industrial establishments in Elmira, N. Y., and in Athens, Renova, Lock Haven, Williamsport and Sunbury, Pa., as well as other towns on flood plains where waters rose to second-story heights in many cases. At Sunbury there is some structural damage from undercutting foundations of large buildings that may prove serious. All available pumps have been taken into the areas to clear basements and low lands so that reconstruction can proceed. Domestic water supplies and other utilities were temporarily disrupted and in some places people are still boiling water but no unusual utility difficulties have been reported.

Flood control dams and channel works helped substantially to reduce the destruction on the upper river tributaries and are estimated to have averted at least $1,000,000 in damage. Arkport Dam—above Hornell, N. Y. on the Canisteo River—and channel improvements prevented serious damage there. Whitney Point Reservoir on the Otselic River held enough of the flood water to prevent serious damage down the Chenango River and at Binghamton, which was outside the area of heaviest precipitation.

Press Assn. photo

***No Game Today**—Sudden floods that hit upstate New York and parts of Pennsylvania last week created scenes like this one, in the outskirts of Elmira, N. Y., where waters of the Chemung River flooded out a baseball park and a newly-built residential development.*

DEVELOPMENTS BEYOND U. S. BORDERS

Digested from reports by Engineering News-Record correspondents and the McGraw-Hill World News Bureau

Britain selects site for first of its "new towns"—Holland begins reconstruction of Rotterdam—Mexico lists public works program

The 6,000 inhabitants of a small industrial and market village, about 30 miles north of London, awoke one morning early this month to find their community had become famous.

It had been selected as the site of the first of the "new towns" to be developed under the provisions of the "Greater London Plan", which entails the outward movement of some 1,000,000 persons from the inner congested districts of the city.

Under the plan as drawn up by Britain's great regional planner, Sir Patrick Abercrombie, a considerable number of satellite towns would be established, some on virgin sites, others built around existing small towns. The "new towns" would have populations of from 50,000 to 60,000 divided into neighborhood units of about 10,000 population, each with its own schools, shopping center and recreation facilities and separated by large open spaces. Complete separation of residential, industrial and commercial section is a fundamental of the plans.

The first new town, Stevenage, is an old manorial village located on the Great North Road from London to the industrial Midlands, which forms a fine wide shopping street. In the new plan the main road would bypass the town as shown on the accompanying map, which indicates the various areas into which the townsite, expanded from 500 to 5500 acres, would be sectioned. Most of the industry is on the west side of the site and the railroad, and this would be expanded in the new plan. All residential areas and the shopping center would be located on the east side of the railroad.

In announcing the selection of Stevenage, Lewis Silkin, Minister of Town and Country Planning emphasized that the studies to be made for its development would provide valuable guidance in the framing and administration of the New Towns Bill recently introduced into Parliament. This legislation provides for the establishment of development corporations whose 9 members will be appointed by the national Minister after consultation with local authorities. This corporation will draw up the development plans for sites previously designated by the Minister, will acquire land by agreement or compulsorily, and will supervise the construction and pay for it out of national funds. It may transfer parts of the completed projects either to local authorities or to private bodies usually on 99 year leases.

Industry and commercial companies and presumably individual home owners can build and pay for their own facilities, but they must be located where the corporation places them, and the land will usually be owned by the corporation or by a local authority after the corporation is liquidated when its debts to the national treasury are settled.

***New Town**—Proposed layout of Britain's first new town—a settlement of 60,000 persons—to be built around the existing village of Stevenage, north of London.*

Reconstruction . . .

Netherlands — Optimistically facing the future with the determination to make war-gutted Rotterdam a "twenty-first century" city, Dutchmen have already begun the vast task of rebuilding the city almost anew.

The job is a peculiar one, but in some ways a planner's dream, since the city today consists almost entirely of suburbs—its principal business districts having been literally levelled by attack both by the Germans (in 1940) and by the Allies (in 1943). More than five million cubic meters of debris has had to be cleared before reconstruction could start, but the thrifty Dutch last week released figures showing they had reclaimed, among other things, some 5,000 tons of iron and thousands of piles—on which a major portion of the city was built—from the wreckage.

Under reconstruction plans, private homes will not be permitted in the center of the city—this area being reserved for stores and a shopping center. Industrial establishments will be restricted to an area north of the city. In the downtown areas, "shopping" and "traffic" streets will be laid out to alternate, so that rear of stores can be used for despatching freight while streets on which the establishments face will be free of truck traffic. Parking space for thousands of cars will be provided as a part of the program.

Most optimistic Dutch estimates place the time required for completion of the program at 15 years.

Public Works . . .

Mexico—A 1946 public works program totalling about $61,857,000 has been approved by the federal government, and two bond issues to cover other improvements have been authorized. One of these issues will be for $33,000,000 to cover costs of highway construction, and the other for $6,186,000 for development of rural electrification projects.

The general public works program will include additions to water supply systems, extension of flood control work and initiation of irrigation projects, and construction of new hospitals, schools, public buildings and recreational facilities.

One section of the program — the building of a "University City" in Mexico City to house the national university, will be conducted jointly with the federal district (Mexico City), and will be financed in part by the sale of present university buildings in the business section of the capital.

New Zealand — The government recently submitted surveys and plans to the dominion Parliament's Budget Committee calling for $100,000,000 worth of construction. The plans specify four types of project:

1. New government buildings at Auckland, Wellington, and Christchurch.
2. Harbor work at nine cities.
3. Electrification of the Hutt Valley railway from Wellington, and of one other branch railway.
4. Irrigation developments in four re-

gions, reclamation of marginal lands around Lake Wautarapa, and flood control in the lower Wautarapa Valley.

Virgin Islands—The Federal Works Agency will soon launch a $10,000,000 postwar program in the Virgin Islands under the supervision of Thomas G. Mooney, district engineer. Projects to go ahead at this time are sanitation and fire protection facilities and an intercepting sewer on St. Thomas Island having a total estimated cost of $800,000. Robert L. Kenan of Montgomery, Ala., is the consulting engineer. Bids will be opened in Washington, D. C. and the opening date will be announced in the near future.

It is expected that in August plans will be completed for highway and road work which will cost approximately $400,000. water supply facilities, $180,000, and malarial control facilities, $60,000.

The program is authorized by a law of the 78th Congress and appropriation was made in the first deficiency bill for 1946 (*ENR* Dec. 27, 1945, vol. p. 849) for the work which is to go ahead this year.

Egypt—Five U. S. bids have been received by the Egyptian government for the large Aswan Dam project (see *ENR*, Mar. 28, '46, p. 16), as well as seven from Great Britain, and one each from Switzerland, Sweden, Belgium and France. The Soviet Union is also reported preparing to bid for construction of the dam.

Russia—More than 1,000 major buildings, representing a capital investment of about $80,000,000 are slated for construction during the next five years in the Moldavian Republic. Kishinev, the capital city, will be site of a new auto repair plant, a state university, a hospital and a maternity home. Local rock quarries and lumber resources will be used for the program wherever possible.

Great Britain—Among the public works listed recently by municipalities and other governmental units in England, Scotland and Wales are: A $5,000,000, 850-bed municipal hospital at Birmingham; a $1,250,000 housing project at Leeds and a $1,750,000 housing project at Sudcup, Kent; a $4,000,000 water supply system for Orkney, Scotland.

Transport . . .

Venezuela—Final plans and specifications for a proposed new airport to be built at Maracay are now being prepared by the Ministry of Public Works, which announced that it hoped to call for bids on the work about the end of June. Under Venezuelan law, the firm that wins the contract must be legally established in the country, but this condition may be met after the contract is awarded, and does not act as a bar to prospective foreign bidders.

India—The Indian government has announced that a proposed seven-year, $1,000,000,000 railway expansion program will get under way at once, with a 1946-47 program calling for expenditure of about $123,000,000. Among items on the 1946-47 program are: purchase of new rolling stock, to cost $33,000,000; renewal of track, to cost $30,000,000; and realignment, remodelling and increasing line capacity, to cost $7,500,000.

Puerto Rico—The Puerto Rican Department of the Interior will invest about $13,000,000 during the fiscal year 1946-47 in public works, to include about $10,000,000 in highway construction, according to Orlando R. Mendez, commissioner.

Washington, D. C.—Although definite plans and estimates have not been prepared in detail, it is probable that $400,000,000 will be invested within the next decade on transportation facilities in the Latin-American republics, according to Col. Maurice E. Gilmore, chief of the department of transportation and economic development, Office of Inter-American Affairs.

Col. Gilmore said that these countries—thanks to heavy war trade—literally have more cash and credit now than they have ever before possessed, with which to finance such a huge expenditure for roads, railways, waterways and other transport needs. They will spend $250,000,000 or more within three years on construction equipment alone, he said, if materials are available.

Guatemala—Congress now has under consideration resumption of work on a highway to connect Guatemala City with Puerto Barrios on the Caribbean sea. Construction of the road was started several years ago, but abandoned. Growing congestion at the port of Puerto Barrios—which also serves the Republic of El Salvador through rail connections—is principal reason for renewed discussion of the highway.

Ports and Harbors . . .

Eire—The harbor commission of Dublin will call for bids soon for new dock construction estimated to cost $3,755,000, to provide accommodation for vessels up to 630 ft. long and weighing up to 18,000 tons. The Eire Ministry of Industry will pay $2,500,000 of the cost.

Brazil—A new dock and complementary works are planned for the South Brazilian port of Pelotas, to cost about $1,160,000. Details, when available, may be obtained from the secretary of transport, at Porto Alegre, Rio Grande do Sul.

Photo by British Combine

***New London Subway Takes Shape**—Work on the eastward extension of the Central London subway, from Liverpool Street has now been resumed, and one section stretching to Stratford is expected to be in use by the end of this year. This section of the tunnel was used as an underground factory in wartime. Here workmen cut away a narrow-gage railway used to service production machines that were located in this tunnel section.*

Allot half-billion for highway building

Federal Works Administration reports apportionment of funds under 1944 highway act to aid states

Maj. Gen. Philip B. Fleming, Federal Works Administrator, has announced apportionment of the second $500,000,000 of the $1,500,000,000 fund authorized in the Federal-Aid Highway Act of 1944 to assist the states in Road Building.

The funds are apportioned for the fiscal year beginning next July 1, and will remain available for obligation to specific projects for two years. The initial authorization—for the current fiscal year—became available last October when Congress declared, by resolution, that the war emergency had abated.

Apportionment by states follows:

APPORTIONMENT OF FEDERAL-AID HIGHWAY, SECONDARY AND URBAN FUNDS FOR THE FISCAL YEAR 1947

State	Highway ($225,000,000)	Secondary ($150,000,000)	Urban ($125,000,000)	Total
Alabama	$4,722,535	$3,739,291	$1,303,288	$9,765,114
Arizona	3,240,289	2,240,966	262,168	5,743,423
Arkansas	3,868,788	3,112,746	558,221	7,539,755
California	9,017,519	5,161,445	8,122,233	22,301,197
Colorado	4,033,468	2,714,271	933,647	7,681,386
Connecticut	1,395,047	765,980	2,607,495	4,768,522
Delaware	1,096,875	731,250	204,057	2,032,182
Florida	3,236,081	2,167,725	1,599,641	7,003,447
Georgia	5,644,683	4,307,866	1,622,008	11,574,557
Idaho	2,798,389	1,956,701	211,799	4,966,889
Illinois	8,833,305	4,752,492	9,510,696	23,096,493
Indiana	5,403,402	3,623,057	3,065,734	12,092,193
Iowa	5,554,317	3,971,103	1,592,107	11,117,527
Kansas	5,646,272	3,963,849	1,107,219	10,717,340
Kentucky	4,213,497	3,412,080	1,299,529	8,925,106
Louisiana	3,394,999	2,540,348	1,531,578	7,466,925
Maine	1,948,844	1,403,942	560,538	3,913,324
Maryland	1,836,150	1,173,982	1,790,081	4,800,213
Massachusetts	2,942,606	786,455	6,612,615	10,341,676
Michigan	6,833,594	4,133,431	5,682,433	16,649,458
Minnesota	6,043,897	4,163,523	2,206,152	12,413,572
Mississippi	4,041,914	3,334,427	600,115	7,976,456
Missouri	6,664,077	4,565,111	3,151,158	14,380,346
Montana	4,543,707	3,104,425	307,665	7,955,797
Nebraska	4,470,027	3,155,163	782,776	8,407,966
Nevada	2,868,649	1,922,269	60,613	4,851,531
New Hampshire	1,096,875	731,250	475,000	2,303,125
New Jersey	2,864,310	1,041,631	5,527,987	9,433,928
New Mexico	3,644,292	2,522,486	257,261	6,424,039
New York	10,834,758	4,272,294	18,776,072	33,883,124
North Carolina	5,431,717	4,452,710	1,492,475	11,376,902
North Dakota	3,341,784	2,408,093	214,578	5,964,455
Ohio	7,893,255	4,650,034	7,539,574	20,082,863
Oklahoma	5,064,288	3,719,690	1,348,164	10,132,142
Oregon	3,728,403	2,544,245	810,873	7,083,521
Pennsylvania	9,182,796	5,268,563	10,517,201	24,968,560
Rhode Island	1,096,875	731,250	1,123,049	2,951,174
South Carolina	3,056,219	2,521,950	654,032	6,232,201
South Dakota	3,532,306	2,513,886	222,116	6,268,308
Tennessee	4,772,002	3,670,485	1,593,037	10,035,524
Texas	14,263,977	10,047,099	4,464,068	28,775,144
Utah	2,535,953	1,688,869	433,731	4,658,553
Vermont	1,096,875	731,250	211,884	2,040,009
Virginia	4,112,674	3,190,410	1,491,272	8,794,356
Washington	3,533,693	2,392,694	1,467,429	7,393,816
West Virginia	2,473,214	2,079,766	807,692	5,360,672
Wisconsin	5,430,678	3,678,326	2,654,468	11,763,472
Wyoming	2,794,242	1,896,157	133,049	4,823,448
Hawaii	1,096,875	731,250	393,416	2,221,541
Dist. of Columbia	1,096,875	731,250	1,146,477	2,974,602
Puerto Rico	1,107,133	1,130,464	834,529	3,072,126

County commissioners exonerated in sewer case

Christian H. Kahl, John R. Haut and Bremen A. Trail, commissioners of Baltimore County, Md., on May 29 were found not guilty on charges of misfeasance in office in connection with the $525,000 Gaines & Bautz sewer and water construction contract (*ENR* May 23, vol. p. 820).

The commissioners had been charged with failing to seek competitive bids on eight projects, but they claimed that they acted in the best interest of the county.

All of the questions involved embraced sewer and water work of Baltimore County not in the city of Baltimore.

It was further pointed out that the contract proposal specifically stated that no plans existed for the work.

CPA cuts authorization on construction work

(*Continued from p. 1*)

tion, the CPA's monthly production report showed that production has continued to increase, although demand has kept well ahead. March lumber production was reported at 2.6 billion b.ft.—a 24 percent rise over February. Production of common and face brick reached 314 million bricks during April—a 50 percent rise since V-J day.

Other outstanding gains in production since V-J day include: Cast iron radiation—up 147 percent; gypsum board and lath—up 47 percent; structural clay tile—up 46 percent, and clay sewer pipe—up 19 percent.

"Building materials affected by the coal strike—such as brick—did not do so well

Housing inspection

Seeking the "best possible value" for houses and apartments built under the Veterans Emergency Housing Program, National Housing Expediter Wilson W. Wyatt announced changes in regulations to permit closer inspection of units built under priority assistance.

"The ceiling prices set through issuance of priorities to date have been merely rough estimates," Mr. Wyatt said. "They helped the home-building industry get started with a minimum of paper work. Experience has shown the need and practicability of giving veterans more protection. We propose to offer all the protection practicable."

The new system of inspections will not affect the 509,289 new units authorized under HH priorities in the period from Jan. 15 through May 24. All housing priorities granted after May 24, however, will be subject to the new inspection system.

Report Morrison-Knudsen awarded Afghanistan job

Guy Carter, resident engineer for Latah County of the Idaho bureau of highways, has flown to Afghanistan as division engineer for Morrison-Knudsen Co., Inc., according to a story in the *Daily Idahonian*, Moscow, Idaho.

The construction firm has a contract to build a highway and dam for irrigation purposes, the newspaper said.

Meanwhile, M-K officials at Boise headquarters of the firm, have made no official announcement of the project as yet.

From 1942 to 1944, Carter served with the civilian Army Engineers in Alaska and Central America, doing the same sort of work on the Trans-Canadian and the Pan-American highways for military use as he will do in Asia, the article relates.

Reclamation Bureau policy declaration limits foreign work to "special cases"

Interior secretary makes public a policy directive outlining use of bureau's engineering services for other than reclamation work

Excepting under "special justifying circumstances", the Bureau of Reclamation will not undertake to render to other agencies or individuals engineering services or consultation not involved in its primary function of the reclamation of arid lands, J. A. Krug, Secretary of the Interior, said in a statement of policy for the bureau, released May 31.

The policy statement is considered significant in view of recent widespread criticism of the bureau's activities in accepting a $500,000 contract for engineering work on a mammoth development of power resources of the Yangtze River in China (*ENR* Feb. 28, vol. p. 310).

"In general," Mr. Krug's statement said, "the acceptance of engineering, consulting or service engagements by the bureau of a nature which may be in competition with private engineers or otherwise incompatible with the purpose for which public administrative agencies are established, is objectionable. Accordingly, the bureau should undertake outside engineering work only within clearly defined limits, determined upon full consideration of the public interest and the rights of private citizens."

The statement outlined conditions justifying performance of engineering services not directly connected with reclamation work as including: (a) A request by a federal agency which does not have the required services within its competence; (b) a public emergency which renders the service essential to general welfare; (c) a major engineering question arising under such conditions that the bureau's services become of unique public value.

"Work undertaken under the conditions noted," Mr. Krug said, "normally will be restricted to services to another agency of the federal government, but at times may relate to work of a state, city or other local governmental unit, or, in appropriate circumstances, a foreign government.

"In rare instances, when the justification is exceptionally strong, work may be undertaken for private individuals, consultants or corporations. Such service will not be undertaken unless the requested service involves a substantial public interest, cannot adequately be performed by private parties, or tends to promote normal work of the bureau in accomplishment of its primary function.

"Only in exceptional cases will consideration be given to rendition of a service for a foreign government. This shall be undertaken, if at all, only when impelled in the public interest by considerations such as a request from the Secretary of State in the light of prevailing foreign policy.

"Such services in no event will be undertaken to the detriment of prosecution of the bureau's current program under the reclamation law."

Construction officers wanted by the Navy

Former Seabee warrant officers, as well as other qualified officers and men with a background in construction work, are being sought to fill approximately 50 vacancies in the regular U. S. Navy warrant officer grades.

Needed particularly for work at overseas bases, the warrant officers, including chief warrant officers, would be assigned to duties involving all types of naval shore maintenance and construction.

Former warrant and commissioned officers are eligible if they had not passed their 37th birthday on the date of their first appointment above chief petty officer. Other eligibility requirements are set forth in Bureau of Naval Personnel Circular Letter 288-45 (revised).

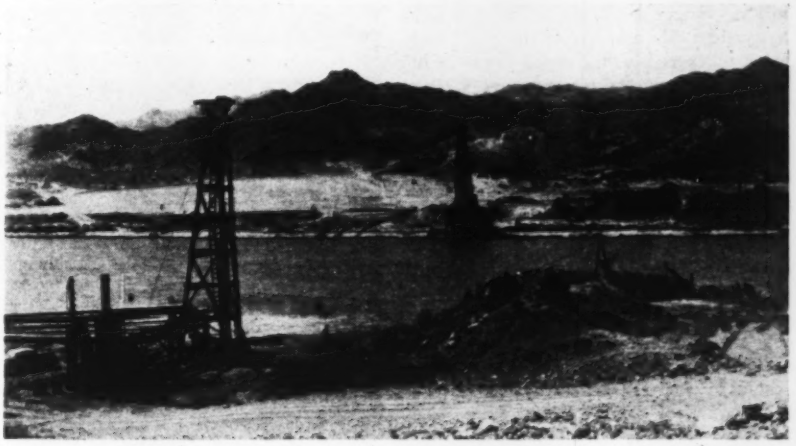
Commerce Dept. to send engineers to Germany

A number of engineers, technical experts, industrial operating and research personnel are being employed by the Department of Commerce to carry out an intensive investigation of engineering methods employed in Germany. Specific subjects to be studied are: Electric power production and transmission, port and harbor facilities, water supply, pipelines, transportation by railroad, highway, water and air, treatment of industrial wastes, sewage disposal, gas utilities, and pure and applied research.

Several engineers are needed to inspect German plants, structures and equipment. Routine work will be done by German civilians, but qualified American personnel will be employed for supervision and the selection of the specific projects. Those employed in the technical document examination will need to have a thorough knowledge of German and be able to read, write and speak in engineering and scientific terms. Investigators in the higher grades will meet with German engineers who, to a great extent, speak English.

The engineers of higher grade sent to Germany will receive about $8,000 yearly, plus traveling expenses and a living allowance for 6 to 18 month stays.

Qualified persons desiring to go to Germany should communicate with the Utilities Unit, Technical Industrial Intelligence Branch of the Office of Declassification and Technical Services, Room 2096, Department of Commerce in Washington, D. C.



***Davis Dam Construction Starts**—Construction of the Bureau of Reclamation's Davis Dam on the Colorado River west of Kingman, Ariz., is now getting well under way. Pile driver (foreground) is driving piles for initial cofferdam construction from the Nevada to the Arizona shore of the river. During the month of April alone, the Utah Construction Co., contractors, excavated more than 100,000 cu. yd. of earth, and had more than 1,000 men working at the site.*

Penna. pollution drive aids in coal recovery

Anti-pollution measures hurt river dredgers but speed recovery of coal at the mines, as recovery plants are placed in operation

Effects of the stream clearance program of the Pennsylvania Water Board are already being felt to a marked degree by companies which dredge coal from the rivers, a partial survey by the board disclosed last week.

According to Harry Weest, board chairman, the report indicates that the amount of coal entering the streams from anthracite collieries has been so greatly decreased during the past year as to cause many of the dredgers to see an early end to a long-established means of procuring coal for industrial users.

The current survey covers the Susquehanna River and its tributaries, and another survey now in progress will report conditions in the Schuylkill Basin.

Best example of the mounting success of the water clearance program, the board said, is that of the Pennsylvania Power and Light Co., which for many years depended entirely upon river-dredged coal to operate its two plants at Harrisburg. Up to 1940, each of the plants consumed 75,000 tons of coal per year—all of which was dredged from the river over a distance of 18 miles. To procure the same quantity of fuel today, dredging operations have been extended to 32 miles up and downstream from the plants.

All dredging operators on the Susquehanna and its tributaries are finding the coal supply diminishing, the board said, and are anticipating the time when it will no longer be profitable to operate. A considerable amount of the coal now being recovered is that which has been in "pockets" along the streams over a long period of time. Many of the major power plants along the river are installing railroad sidings and facilities to bring in fresh-mined coal to replace the dwindling river supply.

Mr. Weest said that since the inauguration of the stream clearance program, many collieries have placed in operation reclamation and silt diversion systems which keep "several million" tons of coal and silt out of the waterways.

Typical of the installations is one operated by the Treverton Colliery of the Stephens Coal Co., in Zerbe Run. The company—acting on advice of water board engineers, built a silt dam covering an area of about 13 acres, which is used to "settle out" the coal and silt and permit relatively clear water to enter the stream. An average of about 300 tons of marketable coal is recovered at this installation daily.

A dredging operation, typical of many in Pennsylvania, recovers coal from Mahoney Creek, Northumberland County, for sale to industrial users. The dredge pumps its scourings to pool formed by low dam at upper right. Dam's opening acts as a sluice to separate rock and other matter, permitting lighter coal to reach screens for recovery.

This silt dam at the Treverton Colliery of the Stephens Coal Co. now contains about 150,000 tons of mixed silt and coal. It provides some 300 tons of marketable anthracite daily from matter that would normally be turned into the stream.

Pennsylvania State Board of Health photos

The pile of fine coal at the right has been recovered by screening a Pennsylvania colliery's wash water that would ordinarily have been turned into the nearby creek. Continuing reduction in the amount of coal recoverable from the streams, plus increased demands for power have forced many industries to accept smaller grades of coal that were previously not used.

$935,000,000 of work in flood-control bill

In reporting out the flood control bill (H. R. 6597), the Committee on Flood Control of the House of Representatives has recommended authorization of $750,000,000 for flood-control construction by the Corps of Engineers.

In addition to the Army Engineers work, the bill also authorizes $150,000,000 of work in the Missouri River basin by the Department of the Interior, and $25,000,000 for watershed improvements under the direction of the Department of Agriculture. The sum of $10,000,000 additional is authorized to be expended in equal amounts by the War and Agriculture departments for examinations and surveys. The bill is not an appropriation measure.

Largest of the Army Engineer authorizations is $150,000,000 for flood protection in the Missouri River basin. Other authorizations for the corps include: Ohio River basin, $125,000,000; Lower Mississippi River basin, $100,000,000; Red River below Denison Dam, $77,500,000; Arkansas River basin, $40,000,000; White River basin, $40,000,000; Willamette River basin $35,000,000; and Los Angeles and San Gabriel River basins and Ballona Creek, Calif., $25,000,000.

Other large army projects authorized are: Rappahannock River basin, $17,755,000; Brazos River basin, $15,582,800; Delaware River basin, $12,471,000; James River, Va., $11,000,000; Upper Mississippi River basin, $10,000,000; Cumberland, Md., $7,420,000; Sny River, Ill., $4,854,944; Mississippi River, vicinity of Prairie du Rocher, Ill., $2,575,000; North Canadian River, $2,037,000; Savage River Md., $1,900,000; Memphis, Tenn., $1,500,000; Waynesboro, Va., $1,431,000; and Lake Pontchartrain, La., $900,000.

Four contracts awarded for Toronto-Barrie road

Canada's major postwar highway construction program has been initiated with the award of the first four contracts for sections of a new divided-lane limited-access highway from Toronto north to Barrie.

The new road, estimated by the Ontario Department of Highways to cost $5,000,000, is an entirely new project, to be built on a new right-of-way between two existing highway routes. Its construction will be undertaken in sections. Contracts for the six remaining sections are pending, as are also contracts for the paving of the divided highway from Toronto east to Oshawa.

New York mayor approves traffic jam survey

New York City's tangled street traffic problem—already the subject of some 53 previous studies—will be surveyed yet again by a committee of experts, Mayor William O'Dwyer said last week.

In a letter to the City Planning Commission, Mayor O'Dwyer said that he will approve a $100,000 appropriation for the work, which will seek "a general review of the planning of major traffic arteries; a study of vehicular traffic as to origin and destination; a study of the entire parking problem, and the effect of concentrations of large buildings, rapid transit and other transportation facilities in certain areas." The committee will then make recommendations concerning more effective control of buildings and building uses, police regulations, revisions in arterial thoroughfares, and similar matters.

Director of the survey, according to the Mayor's letter, will be Gano Dunn, head of the J. G. White Engineering Co. of New York. Field work will be done by the engineering firms of W. Earle Andrews and Gilmore D. Clarke.

HAY, HOMESEEKERS!

A house of hay is being built at Stockton, Calif. It's not just hay, of course. That would be too inflammable. The walls are laid up with baled hay and are 17 in. thick. The hay is faced inside and out with 6-6 welded steel mesh, over which goes 3 in. of concrete mix applied under pressure.

The roof, like the floor, will be a solid slab, with 5x12 reinforced concrete beams every 4 ft. The house, 63 ft. deep and 35½ ft. wide will have five large rooms.

The builder is Wallace Thompson, an experienced building contractor. He says the house is bound to be cool in summer and warm in winter. He also says that prospective buyers are already offering to make a deposit on the house. They can hardly wait to "hit the hay" in this strange domicile.

Boston, Mass.—The Committee on Highways in the Massachusetts legislature has approved plans for creation of a Mystic River Bridge Authority and construction of a self-liquidating $16,000,000 toll bridge between Charlestown and Chelsea.

The bridge would be a high-level structure without a draw, and would be built near the site of the present bridge from Chelsea Street, Charlestown, to Broadway, Chelsea. A 10-cent toll would be charged.

Plans for Mississippi scenic highway advanced

The newly-formed Mississippi River Scenic Highway Association plans an early meeting at Pere Marquette State Park, near Grafton, Ill., in an attempt to attract all the Illinois counties bordering the Mississippi River into joining the organization. Thomas M. Beatty, of Quincy, has just finished a tour of Illinois counties involved in the program in preparation for the meeting. Organization president is Edward P. Allen of Quincy.

With this association's support, Representative Robert Chiperfield, Canton, Ill., has introduced a bill in the House concerning the proposed 2,500-mile Mississippi scenic drive and parkway.

Matters involved are the acquisition and conveyance to the United States government of those areas, easements, and right-of-ways that the Secretary of the Interior may approve for parkway purposes. States must also handle flowage, river bank protection, levee control, navigation, surveys, removal of power lines, local road changes and titles; and they must administer parkway properties until these are transferred to the Interior Department.

The project would provide the only large federal park between the Rockies and the Blue Ridge and would include such beauty spots as the Palisades zone north of Moline, Nauvoo, Galena, Kaskaskia, the Illinois Ozarks, and Horseshoe Lake. The original plan for the Mississippi scenic route was promulgated before World War I, and the present scheme was launched last November in a meeting at Moline, Ill.

Texas highway tunnel work approved by commission

Contingent approval of $5,000,000 assistance to each of two southeast Texas tunnel projects has been given by the Texas Highway Commission. If local governments will pay all additional costs and meet the commission's terms in other respects, the highway department will furnish $2,500,000 of its funds and set aside $2,500,000 of the state's portion of federal aid for each project.

One tunnel would be beneath the bay from Galveston Island to the Texas mainland, a distance of one mile. It would cost an estimated $10,000,000. The state now operates a ferry service between the points.

The second bore approved is to be beneath the Houston ship channel, near Baytown, serving a large industrial area. Total cost of this project is estimated at $7,900,000.

General strike settled at Rochester, N. Y.

Municipal workers may join unions—Moline raises pay 10 percent—Other labor developments during week.

After a 24-hour work stoppage at Rochester, N. Y., mediation on May 29 brought an end to a general strike which came as a climax to a turbulent 13-day-old dispute between the city administration and employees of the city department of public works over joining the AFL Federation of State, County & Municipal Employees.

The city administration, contending that its Public Works Department workers could not join unions, had first abolished, then reinstated 489 jobs (*ENR* May 23, vol. p. 819).

Frederick H. Bullen, executive secretary of the State Mediation Board, announced these points were agreed upon:

1. All employees will return to work forthwith and be accepted without prejudice.

2. All disorderly charges (preferred against 267 pickets arrested last week) will be withdrawn and it will be recommended that bail be returned at once.

3. Any city employee has the right to join any organization which is loyal to the United States and does not claim the right to strike against the public.

It was explained that the city will continue its policy of meeting with committees of employees having grievances, whether organized or unorganized, and that they may be accompanied by counsel. Harold S. W. MacFarlin, city commerce commissioner told the Annual Conference of Mayors on June 3, however, that the city would not enter into any agreement or contract with a union and that "outsiders" could not represent city employees.

Akron contractors overpay

Seven Akron, Ohio area contractors have admitted paying wages higher than the approved area scales for the building and construction industry, the fifth regional wage stabilization board announced May 23.

The total of overpaid wages was $5,300, the board said. The amount each of the seven paid will be disregarded in computing contractor's operating costs for purposes of determining his income tax, the board added.

The Moline, Ill., city council recently passed a new wage rate ordinance which gives the majority of city employees a pay increase of ten percent and larger increases for a few others.

"Drinking cup" strike at Cambridge

There was an unusual strike recently on the largest building project in Cambridge, Mass., because the builder had not provided individual single-service paper drinking cups as required under the Massachusetts law. One thirsty worker walked out on the job and hundreds of others walked out in sympathy. Max Berger, the builder, quickly supplied the cups and America's first strike over sanitary paper cups was amicably settled. Under the Massachusetts law, the employer may be fined one hundred dollars per violation per man. This, according to Berger, had no bearing on the quick settlement.

"I'm only interested in maintaining the health of the workers," he said.

Ceiling for insulation

Flat dollars-and-cents ceiling prices for labor and materials used by contractors installing thermal insulation in existing buildings, covering the five boroughs of New York City and Nassau and Westchester counties, were announced by Leo F. Gentner, Regional OPA Administrator. The new schedules became effective June 1.

The new schedule will aid landlords and home owners alike in determining final costs of building construction and repair.

Two new airports now proposed for St. Louis

Construction of two airports in St. Louis, Mo., to be built partly with federal funds provided under the recently-enacted Federal Airport Aid Bill, (*ENR* May 16, vol. p. 763) will complete the chain of three secondary fields listed for construction inside the city limits in a comprehensive airport plan.

Mayor Aloys P. Kaufmann, following a conference with Civil Aeronautics Administration officials, announced that he would ask the Municipal Airport Commission to proceed immediately with condemnation of the land for the two airports. One is to be located at Hampton and Columbia avenues, and the other at Weber and Morganford roads.

The first is classified as a "personal" flying field, to include provision for non-scheduled commercial use. A three-directional runway system would provide paved strips 3000 by 100 ft. and 2400 by 75 ft. Engineers estimate cost of this airfield at $1,731,500.

The other field is classified as a minor airport, intended for private flight operations only. Estimated cost is $1,194,500.

Apprentice training shows big increase

In recent months the number of apprentices in the building trades increased 16 percent, according to reports made by 866 apprentice training committees to the U. S. Department of Labor.

The increase in apprentices is broken down on a percentage basis as follows: Pipe trades (plumbing, steamfitting and related), 21; woodworking (carpentry and cabinetmaking), 19; trowel, 14; electrical, 12; painting, 10; sheet metal, 9 and others, 19. The actual number of apprentices covered by these 866 committees totalled 16,101 when the report was made.

Housing Expediter Wilson W. Wyatt recently warned that apprentice training "must be speeded up unless labor is to become a future bottleneck" in the housing program. Shortages of skilled building craftsmen exist particularly in the South, Middle West and West, he reports.

It is estimated that the apprentice-training committees in building construction must be increased to about 5,000 if the emergency housing goal is to be reached. In March only 1,150 committees had been organized.

Unions asked to cooperate

Wyatt has urged AFL union leaders to relax their apprenticeship restrictions more generally than has been done. Some unions are cooperating, particularly in regard to veterans, but have left it up to the individual local unions as to how far they want to go. Some locals are making no changes whatever. Most of them feel that the need is exaggerated and that they will be creating an over-supply of skilled labor.

Wyatt told the AFL at its recent conference in Asheville, N. C., that only 650,000 are employed in producing and distributing building materials and in actual home building. This number will have to be more than tripled, or increased to about 2,150,000 by the middle of next year, he said. More than half of that number will have to be employed in actual building.

Memphis accelerates program

An accelerated program to relieve housing shortage in Memphis, Tenn., by providing more trainees in the building trades will get under way there within the next two weeks, Hugh M. Magevney Jr., War Manpower Commission director for West Tennessee, has announced.

Organization of joint committees of labor and management in each building trade is the first step in the new program.

Vote $78 million Phila. improvements

Philadelphia, Pa., voters by a majority of 7 to 1 voted four loans totaling $78,200,000 and covering the cost of major improvements in the city's postwar development program. (*ENR* March 7, vol. p. 334).

First of the loans is $34,000,000 to meet expenses of the city's program of sewage collection and treatment, with the ultimate total cost estimated by the City Planning Commission at $48,131,769. One $8,000,000 councilmanic loan had already been authorized for the work.

General improvements covered by the second loan of $25,000,000 include $5,000,000 toward the $5,967,650 program for hospital and health center improvement; $1,000,000 toward a $1,897,514 House of Detention, $200,000 for a reception center for dependent children, to cost $201,000; $3,000,000 for improvement of the port, $1,500,000 toward the $9,136,000 flood control and drainage program; $4,300,000 toward the removal of the "Chinese Wall" and construction of Pennsylvania boulevard at a cost of $8,667,276; $8,000,000 toward the $27,398,087 extension of the Market St. subway to 46th St. and $2,000,000 to install tracks for an express line in the Broad St. subway.

The third loan of $10,000,000 is for developing the southwest and northeast airports at a total cost of $15,000,000.

The fourth loan, totaling $9,200,000, includes $5,000,000 toward the $84,717,720 city-state program of road construction and repair; $3,000,000 for parks, playgrounds and recreation centers and $1,200,000 toward the $2,993,148 estiestimated cost of repair improvements to City Hall.

In addition to the loans approved by the voters City Council has approved $17,000,000 of loans under its own borrowing power. These include $5,000,000 for airports, $1,500,000 for playgrounds, $8,000,000 for sewage improvements, $1,000,000 for garbage incinerator, and $1,500,000 for road repairs.

L. A. sewage plant financing assured

Financing of Los Angeles' proposed sewage treatment plant and submarine outfall sewer has been assured by allocation to the city of $13,084,059 by the California State Board of Public Works.

In making the announcement of the available state funds, Mayor Fletcher Bowron pointed out that the money will be more than matched by the $10,000,000 bond issue approved in April, 1945, (*ENR* April 12, vol. p. 542) plus $4,033,625 to be contributed by neighboring cities.

The appropriation marks the end of a long struggle by city officials to improve and expand the city's sewage facilities. Quarantined beaches, lawsuits (*ENR* Feb. 21, vol. p. 270), and inadequate financing have obstructed the planned $21,000,000 project. Spokesmen for the city now say that material and labor shortages are the only blocks that may postpone start of construction.

Although voters had approved the $10,000,000 in 1945, it was discovered after the election that the city could not legally start work on the project until the full $21,000,000 was available. At the time of putting the bond issue on the ballot, observers said the inadequate figure had been chosen for two reasons: (1) It was believed the 1945 legislature would make up the difference; (2) the sum was kept low so as not to adversely influence too many votes on a competing $12,000,000 bond issue for municipal airport improvements.

It was not until a special session of the legislature early this year passed a $90,000,000 bill to aid cities and counties in postwar construction that the money to aid Los Angeles became assured. At the time of the bill's passage, an ordinance was being considered by the Los Angeles city council to set up a sewer service charge estimated to bring in about $3,000,000 a year. This was said to meet the legal requirements necessary to release the available $10,000,000 fund and start construction immediately.

Sanitation prospects along the Mexican Border

At El Paso, Tex., recently there was a meeting of the 4-yr.-old U. S.-Mexican Border Public Health Association, which has arranged much cooperative endeavor between the two countries on matters pertaining to sanitation where there are interests affecting both sides of the border. Aiding in this activity is the American commissioner of the International Boundary Commission, L. M. Lawson of El Paso. He has helped to advance such projects as Mexican disposal for a sewer system serving Douglas, Ariz., and cooperative studies on joint disposal of sewage from Mexicali and Calexico, adjacent towns on the international boundary.

CAA outlines steps in national airport program

Preliminary applications for federal aid under the National Airport Act will be received by early fall and a substantial start on construction will be made by the spring of 1947 if present expectations of the Civil Aeronautics Administration are realized, Charles B. Donaldson, assistant administrator, told the annual convention of the American Association of Airport Executives in Chicago on May 22. As the first step toward that end, the CAA needs $3,000,000 authorized by the act, but not yet appropriated, to expand its organization, establish district offices and develop rules, regulations and procedures, he said.

Appropriation authorized

Immediate appropriation of the $3,000,000 was authorized by the act for preliminary planning and preparation, Mr. Donaldson stated. When the organization is expanded, he said, CAA expects to have a district office for each state to enable prospective sponsors to carry on negotiations for participation under the program through a district office near them. (*ENR* May 16, vol. p. 763)

Local public agencies are eligible to apply directly for grants under the act, he explained. Funds will be available only if Congress makes an appropriation for the next fiscal year. The program will be carried out through field offices.

Army revises boundaries of Miss. River districts

Changes in the boundaries of the three Army Engineer districts under supervision of the Mississippi River Commission, to place the Arkansas and Red Rivers within the area, each under single district jurisdiction, have been announced by Maj. Gen. R. W. Crawford, commission president.

Under the new arrangement, General Crawford said, all of Red River and its Louisiana and Texas tributaries from Fulton, Ark., to its mouth will be under the New Orleans Engineer district, while all of the Arkansas River and its tributaries from Pine Bluff, Ark., to its mouth will be handled by the Vicksburg Engineer district. Heretofore, Red River was split between New Orleans and Vicksburg, while one bank of the Arkansas River was in the Vicksburg district and the other in the Memphis district.

The changes will result in improved planning and construction supervision, General Crawford said. Transfer of responsibilities among the three districts will be made gradually to prevent any delay to operations, he added.

MEN AND JOBS

Warren Sleeger has resigned as assistant engineer of the Minneapolis-St. Paul, Minn., Sanitary District to become civil engineer with the Technical Section, Veterans Administration.

James B. Ward, formerly assistant to the chief geologist for T.V.A. at Knoxville, Tenn., has become chief geologist with the Mobile USED.

Frank Lyons, brother of the late J. A. Lyons, and Harold Eder, superintendent for the J. A. Lyons Co. of Portland, Ore., for the past 20 years, have formed a partnership to continue in the heavy construction industry, under the name of Frank Lyons & Co.

Pennsylvania's Department of Highways has announced these appointments: **Walter L. Mowrey,** and **Robert J. Reese,** State College, resident engineers, district office No. 2, Clearfield; and **J. Donald Port,** resident engineer, district office No. 10, Indiana.

Caldwell & Scott, Inc., have recently opened another Florida office at Fort Lauderdale, for their construction projects in that area. **W. W. Caldwell,** president, is in charge.

Ross B. Allen, city engineer of West University Place, a suburb of Houston, Tex., has been appointed city engineer of Highland Park, a suburb of Dallas.

The Hennepin County, Minn., board of commissioners has named L. P. Zimmerman county highway engineer to replace **W. E. Duckett** who had held the post for 18 years and who has been appointed highway engineer emeritus.

Juan B. Aramayo, director general of the highway department of the Republic of Bolivia, arrived in Washington recently on a 3-months visit to the U. S. He is the guest of the Office of Inter-American Affairs, the Public Roads Administration, and the American Road Builders' Association. During his visit here he will inspect highways, study highway materials and construction methods, and visit the factories of a number of firms which build highway construction equipment.

E. J. O'Dell, assistant highway division engineer at Ada, Okla., has been named Tulsa division engineer. He will replace **Joe Terry,** who is being appointed state maintenance engineer.

Albert Meins is city engineer of Delavan, Ill.

Recent changes and appointments in the Health and Sanitation division of the Institute of Inter-American Affairs include the following: **John T. Howele,** structural engineer, to work on the Hospital Roosevelt in Guatemala; **J. E. Van Gundy,** construction engineer with the Honduras field party; **Maj. Clifton W. Hovee,** sanitary engineer to the Vitoria office field party in the Rio Doce Valley, Brazil; **John D. Faulkner,** sanitary engineer with the field party in Brazil; **Francis W. Montanari,** sanitary engineer with field party in Belem, Brazil; **Maj. Alfred E. Williamson,** former chief of field party in Bolivia has been released from active duty with the Army Sanitary Corps, AUS, having been promoted to lieutenant colonel; and **Maj. John K. Chattey,** sanitary engineer, has been released from active duty with the Sanitary Corps, AUS, but will soon resume his duties in Guatemala, as sanitary engineer in a civilian capacity.

Frank J. Ruckert and **John H. Mielke** formerly with the city engeering department at Waukesha, Wis., have formed the partnership of Ruckert-Mielke, Professional Engineers, at Waukesha.

John V. Mangold, an engineer with the Columbia, Utah, Steel Co., has been appointed city engineer of Marshfield, Wis.

The resignation of **Forrest Nifong** as city engineer of Wood River, Ill., has been accepted and **Wilbur Stevens,** a Standard Oil Co. employee, was appointed in his place.

Starry J. Mahaffey, who resigned recently as city manager at Durham, N. C., has become executive director of the Virginia Road Builders Association, at Richmond, Va.

City Engineer **Donald Davies** has been named city manager of Salinas, Calif., to succeed **Charles C. McCall** who resigned to become associated with the Salinas Valley Engineering & Development Co. Davies now combines the offices of city engineer and city manager.

Back to Civilian Activity

William J. Wagner, captain, Air Forces, will be in the project planning section of the Bureau of Reclamation at Phoenix, Ariz.

David J. Johnson, captain, Corps of Engineers, has been appointed city engineer of East St. Louis, Ill.

F. E. Boyden, St. Paul, Minn., former captain, Corps of Engineers, was appointed city engineer at Moorhead, Minn. Boyden was employed before the war by the Minnesota highway department.

Arthur H. Wedge, lieut. colonel, has been named Fort Wayne, Ind., city airport manager. He was formerly city engineer at Wooster, Ohio.

B. J. Wheeler, lieutenant, head of Wheeler Engineering Co., has returned to Portland, Ore.

John W. Irvine, recently released from the Navy, where he was an ordnance officer, is assistant city engineer at Coos Bay, Ore.

J. Edward Crabiel, lieut. (jg), has resumed work as construction superintendent with the Franklin Contracting of Newark, N. J.

J. P. Carriere, colonel, has been appointed city manager and engineer of Hull, Que. He succeeds **Theo Lanctot** who has resigned as city engineer, Colonel Carriere had been on the staff of the Department of Public Works, Canada, for many years.

Kar Jacobsen, captain, has returned to Portland, Ore., after serving with the Army Air Forces Engineers and has resumed operations in the heavy construction industry. He will operate under the name of K. F. Jacobsen & Co.

Lawrence H. Byrnes, Columbus, Neb., has been appointed city engineer and street commissioner there.

Dwight Barmore, Blue Earth, Minn., has been appointed by Faribault County as assistant highway engineer. He was recently discharged by the Navy and previously was employed by the state highway department.

C. E. Bunting and **R. R. Carey,** lieut. colonels, Corps of Engineers, have resumed with the Bunting Tractor Co., Boise, Ida. Bunting is president and Carey manager of the La Grande, Ore., branch.

R. W. Johnson, formerly captain in the Coast Artillery, is now with Hitchcock and Esterbook, consulting engineers, Minneapolis, Minn.

Maj. Gen. Lief J. Sverdrup is out of uniform after four years of active Army duty, but he holds the floor in conversation with Maj. Gen. R. C. Crawford, president of the Mississippi River Commission, (left) and Lt. Gen. R. A. Wheeler, Chief of Engineers. The three met at a recent St. Louis, Mo. conference of the Mississippi Valley Association, where river problems were discussed.

The Fort Worth, Tex., Army Airfield is getting a new 8,200-ft. runway, and these men are directing the job: Dan R. Ketchum, resident for U. S. Engineers; W. H. Courson, and R. R. Giddens, respectively vice-president and secretary of the Texas Bitulithic Co., Dallas, contractor. Fourth man is Uel Stephens, superintendent, Fort Worth City Waterworks, who is checking theoretical problems.

John W. Ratliff, superintendent for the Glade Construction Co., Fort Worth, and Joe B. Mapes, resident engineer, Freese and Nichols, consultants, are supervising addition of two sludge digestors at Fort Worth, Texas.

John L. Hawkins, superintendent of water works at Greenville, S. C., recently marked his 30th year with the department—he joined it when he was 15 years old. He's been superintendent 10 years.

Joseph A. Whitman (left) and Nat D. Peirson are the principals of the consulting firm of Peirson and Whitman, of Raleigh, N. C., now engaged in planning extensive municipal engineering projects.

Regional power managers of the Bureau of Reclamation met at Denver recently to check the bureau's current and future construction plans. Standing, left to right, are: B. W. Creim, Sacramento, Calif.; L. E. Mathews, Salt Lake City; A. W. MacIntyre, Amarillo, Texas; H. R. Lee, Denver. Seated: Dan Campbell, Boise, Idaho; E. R. Fosdick, Denver; H. F. McPhail, director of power utilization, and J. R. Walker, Billings, Mont.

W. O. Jones, director of public works for Ft. Worth, Texas, is also chairman of the American Public Works Association for Texas. He's planning the APWA's annual meeting, Sept. 22-25 at Fort Worth.

ENGINEERING SCHOOL NEWS

Technology students at Minnesota increase 287 percent—Georgia Tech to spend $3,200,000 on dorms—Personal items

The total enrollment at the University of Minnesota now exceeds 15,500 full-time students. The largest gain over a year ago is in the Institute of Technology—a 287 percent increase. Of the 1838 students registered in the institute, 1395 are veterans. In the civil engineering department there are 145 veterans in the total registration of 198.

Georgia Tech of Atlanta, Ga., is planning to spend $3,200,000 constructing apartments and dormitories. Bids will be taken soon for all of the work.

The Technological Institute of Northwestern University has begun a new program, offering graduate work toward a master of science degree in engineering to approximately 200 students. This new program, aimed at helping to relive the present shortage of research scientists, will be in charge of Paul E. Klopsteg.

Herman G. Baity, professor of sanitary and municipal engineering in the University of North Carolina school of public health has been appointed acting dean of the school.

John B. Scalzi has joined the staff of the department of civil engineering and engineering mechanics as assistant professor of structural engineering, at Case School of Applied Science, Cleveland, Ohio. Formerly with the National Aniline division of Allied Chemical and Dye Corp. as a structural engineer, his experience includes over five years as a structural engineer for Curtiss-Wright Corp., airplane division, and two years of teaching with the Cornell University E.S.M.W.T. program in Buffalo, N. Y. He received his B.S. degree from Worcester Polytechnic Institute, Worcester, Mass. and his M.S. degree from the Massachusetts Institute of Technology.

James R. Cudworth has been appointed dean of the College of Engineering of the University of Alabama, effective July 1, 1946. He succeeds George J. Davis, Jr., who is retiring after 34 years of service as dean and professor of civil engineering.

James J. Doland, professor of civil engineering, University of Illinois, who has served as supervising engineer in charge of construction of the new airport of the university, has asked to be relieved of those duties. He has installed all drainage and paving contracts at the airport, as well as a surplus Army hangar, gasoline facilities, and many other improvements. He has been carrying a heavy teaching schedule in the department of civil engineering, handling instruction in airport construction, hydrology, drainage, flood control, and water power. He has also asked for leave of absence from that work until July 1.

Ira M. Beattie, who was employed by the Canadian Bridge Co., at Walkerville, Ont., recently was appointed assistant professor of civil engineering at the University of New Brunswick, Fredericton, N. B., Canada.

Sebastian B. Littauer has been appointed chairman of the mathematics department of the Newark, N. J. College of Engineering. Formerly a professor in mathematics at the United States Naval Academy, Mr. Littauer did extensive research work during the war with Bendix Aviation Corp., and the Johns Hopkins University. Another addition to the staff is John F. Nelles, former assistant training supervisor for Federal Shipbuilding and Dry Dock Co., Port Newark, N. J. He has been appointed an assistant professor in personnel relations.

***Plane vs. Skyscraper**—In the second such accident within a year (ENR Aug. 1945 vol. p. 129) a light Army C-45 transport plane, groping in heavy fog, crashed into the 58th floor of the Bank of Manhattan Co. Building in downtown New York May 20, killing the plane's five occupants. No structural damage to the building was apparent, excepting this 15-ft. square hole at the point of impact. Because the crash occurred at night, the building had few occupants, and no one inside was injured.*

Fred E. Ayer has retired as dean of the college of engineering, University of Akron, Ohio, and is now dean emeritus. He will continue to teach until June, 1947, when he will retire from the faculty. His successor as dean is R. D. Landon, formerly of Southern Methodist University, who served as professor of civil engineering and field representative for engineering, science and management war training in Washington.

Prof. Thomas Kelvin Fitz Patrick, professor of architectural engineering, Iowa State College, Ames, Ia., since last September, has been appointed head of that department. Fitz Patrick fills the vacancy caused by the recent death of Prof. Allen H. Kimball of that department.

Prof. David L. Arm, head of the mechanical engineering department, Iowa State College, has resigned to become dean of the school of engineering, University of Delaware. Arm joined the state college faculty in 1941 as professor of mechanical engineering and was made head of the department July 1, 1942.

Joseph Weil, dean of the College of Engineering and director of the engineering and industrial experiment station at the University of Florida, was honored at a banquet given him by members of the college and experiment station staffs and faculty. Highlight of the event was the presentation of two student loan funds of $500 each to be known as the Joseph Weil and the President John J. Tigert student loan funds.

N.C. warns contractors of licensing requirement

General contractors entering into construction contracts in North Carolina must comply with state licensing and qualification laws, the state licensing board for contractors said recently.

In its warning, the board said state law defines a contractor to be "one who, for a fixed price, fee, commission or wage undertakes to bid upon, construct or superintend the construction, of any building, highway, sewer, grading or any improvement or structure where the cost of the undertaking is $10,000 or more." Any person who falls within this definition must be properly licensed by the board, the warning added.

Veterans hospital fund included in new bill

A deficiency bill (H.R. 6601) authorizing the Veterans Administration to enter into contracts to the amount of $441,250,000 for construction of hospitals was passed by the House May 29. The measure also includes $35,000,000 for the Bureau of Community Facilities of the Federal Works Agency for assistance to local public works planning groups. This agency has received a total of $30,000,000 for this work in former bills.

Late last year a deficiency bill (H.R. 4805) containing $158,320,000 for the Veterans Administration was passed (*ENR* Dec. 7, 1945, vol. p. 751). When previous appropriations were added, a total of $331,452,814 was provided. Now the Veterans Administration is seeking authority to enter into construction contracts to the total amount of $772,702,814.

This large sum is needed to complete 76 hospitals scattered throughout the U. S. Most of the actual construction will be handled by the Army Engineers.

In accordance with the program announced in February (*ENR* Feb. 21, vol. p. 265) the Army engineers have already been instructed by VA to go ahead with the detailed planning and construction of 14 hospitals (*ENR* April 18, vol. p. 531 and May 23, vol. p. 813). Recently the Army announced that the following firms had been engaged as architect-engineers: Fort Hamilton Hospital, Brooklyn, N. Y., Skidmore, Owings & Merrill of New York and Chicago; Newark, N. J. hospital, Ziegler & Childs of New York and New Jersey; Buffalo and Albany, N. Y. hospitals, Eggers & Higgins of New York and Green & James of Buffalo.

With its own forces, the VA has two hospitals under construction. One is located at Lebanon, Pa., and the other at Tomah, Wis.

The new bill permits the Veterans Administration to spend up to 10 percent on administrative costs. Previously, the limit was 3 percent.

When the new bill was brought before the House it contained $50,000,000 for the Bureau of Community Facilities, but this was reduced to $35,000,000 before the measure was passed.

Cleveland, Ohio—More than 2,300 claims and lawsuits against the East Ohio Gas Co., Cleveland, resulting from the explosion and fire at the liquefied gas storage plant on Oct. 20, 1944, (*ENR* Nov. 2, 1944, vol. p. 535) have been settled for a total of $3,893,812, company officials recently announced. Only 20 small claims against the utility remain unsettled.

Harbor improvements for Boston and Newport

Plans have been announced by Clarence H. Kells, new director of the Port of Boston Authority, for conversion of the Hoosac Dock at Charlestown, Mass., into an ocean terminal with more than 2000 ft. of berthing space and 393,000 ft. of floor area. The terminal would have a frontage of 950 ft. along the deep water of Boston Harbor, providing berths for two ships of modern cargo size, 560 ft. on the easterly or Navy Yard end and 500 ft. along the westerly end toward Charlestown Bridge.

The present site consists of one narrow pier, equipped with grain conveyor galleries for loading grain from the adjacent Boston & Maine Railroad elevator. The cost of the new project is estimated at $6,650,000 for a non-fireproof structure and $7,700,000 for a fireproofed terminal, the estimates not including the cost of land.

It is proposed to utilize filled areas within the low granite walls, which occupy a considerable portion of the shoreward area of the site, by constructing a new wall parallel to the shore as a foundation for nearly half the area of the pier deck.

The U. S. District and Division Engineers have approved expansion of the President Roads anchorage in Boston harbor by extending the anchorage area 700 ft. to the north and 500 ft. to the west, at a depth of 40 ft. mean low water. The approval also included dredging an area lying west of the anchorage adjacent to the 35-ft. channel, with both projects to be done at an estimated cost of $1,802,000, with an annual maintenance of $2000.

Newport, R. I., has asked the Rhode Island Port Authority to make a survey of a possible site for a new pier. The request followed a visit of port authority members to investigate the need of a new state pier. While primary consideration was asked for the fishing industry, proposals were also made to include accommodations for freight and passenger services and pleasure craft. The U. S. Navy's intention to retain Long Wharf revealed Newport's need for additional deep water wharfage.

Field offices of PRA can approve contracts

The Public Roads Administration has announced that its field offices are now permitted to approve contract awards without reference to Washington even if the bids are at rates 50 percent over the 1940 base. Previously, the PRA had required that bids 50 percent above the 1940 level be submitted to the Washington office before approval (*ENR* April 25, vol. p. 671).

During the first four months of 1946, PRA disapproved only 2.6 percent on a dollar basis of the contracts submitted for approval by the state highway departments. Bids on 1,120 jobs were submitted for approval during the four months and PRA failed to approve only 36 projects.

JOBS OF THE WEEK

PLANT, Davenport, Ia.

Aluminum Co. of America, Pittsburgh, Pa., awarded a contract for grading, placing foundations, concrete work, and dock facilities, relocating railroad, new spurs and sidings, to Walsh Construction Co., Davenport, Ia. Total estimated cost is $30,000,000.

POWER PLANT ADDITIONS, Idaho

Morrison-Knudsen Co., Boise, Idaho, has been awarded a contract for additions to Lower Salmon Power Plant on Snake River and Malad River Plant, Gooding County, by Idaho Power Co., Boise. The estimated cost is $6,500,000.

RECONSTRUCTING POWER STATION, Montville, Conn.

United Engineers & Constructors, Inc., Philadelphia, Pa., has been awarded a contract by Connecticut Light & Power Co., Waterbury, for reconstructing a power station, to cost about $4,300,000 with equipment.

WAREHOUSE and PIER, Lamberts Point, Va.

Norfolk and Western Railway Co., Norfolk, awarded a contract for a warehouse and pier to McLean Construction Co., Baltimore, Md., at about $3,000,000.

OCEAN OUTFALL SEWER, Los Angeles, Calif.

City of Los Angeles, awarded a contract for ocean outfall sewer at Hyperion to Guy F. Atkinson Co., Long Beach, at $3,517,410. L. Aldrich, is the city engineer.

Note—Additional bidding and contract news on many projects large and small, including the above items, appear in the Construction News section beginning on page 17.

OBITUARY

J. Waldo Lord, 71, York Village, Me., an engineer formerly associated with the Boston, Mass., engineering department, died recently at Lanett, Ala. Mr. Lord was vice-president of the Boston Manufacturers' Mutual Fire Insurance Co. and an associate of the inspection department of the Factory Fire Insurance Co. He was an expert in fire prevention engineering.

Glenn Bartlett Ashcroft, civil engineer, died at Sacramento, Calif. recently.

Nelson Barritt, 64, chief engineer in charge of construction for Manitoba's Department of Public Works for 34 years, died May 18. Mr. Barritt, a graduate of Cornell University, entered the department in 1912.

Edward L. Greene, 48, was killed May 20 in an auto-train crash at Ephrata, Wash. A civil and hydraulic engineering graduate of Washington State College and a private engineer for several years, Greene was an assistant office engineer for the Bureau of Reclamation at Grand Coulee Dam from 1934 to 1942. During the war he was connected with Kaiser Co., Inc., at Vancouver, Wash., returning to the Bureau in April of this year as assistant irrigation engineer for the Columbia Basin project.

Walter H. Heydorn, 72, New Orleans, La., retired engineer of the United States Steel Corp., died recently. He had been connected with the corporation for about 50 years before retiring 7 years ago. He was chief engineer and plant designer of the Chickasaw Ship Building Co., Mobile, Ala., during the first world war and also designed the Fairfield works at Fairfield, Ala.

George A. Griner, 59, chief surveyor of the technical division of St. Petersburg, Fla., died there May 19. He had been employed by the city for 35 years.

Andrew I. Cunningham, 53, for a number of years resident engineer on construction for the International Paper Co. at Three Rivers, Gatineau and Dalhousie, N. B., died at Ville St. Laurent, Que., May 15.

Alfred A. Bibber, former Boston, Mass., construction superintendent for the George A. Fuller Co. and the Sawyer Construction Co., died May 27 at Hyannis.

Allan Patterson, 74, civil engineer, died May 7 at Newton Center, Mass.

Eldridge Roger Boyle, 70, engineer, died in Washington, D. C., May 27. In 1900 he was awarded a master's degree in civil engineering at George Washington University. Later he helped to develop the street railway system in Washington and was engineer of roads and bridges in Prince Georges County, Md., before founding the Boyle-Robertson Construction Co., of which he was president for 18 years. His company did construction work for the Army during World War I.

Mr. Boyle resigned from the construction company in 1927 and opened an engineering office in Boston. During the 1930s he was associated with the Public Works Administration in Massachusetts and later in Washington.

Thomas H. Croswell, 79, who was engineer for many bridges constructed by the Northern Pacific Railway, died in Brainerd, Minn., May 23.

Jacob Enos Troyer, president of the Central States Bridge Co., died at Indianapolis, Ind., May 27. A graduate of Purdue, he at one time was chief engineer for W. J. Holiday & Co.

Sydney F. Nunan, 62, a structural engineer, died in Los Angeles, Calif., May 23.

Harry S. White, 49, civil engineer, died in Kansas City, Mo., May 20. He was a partner in Cockrell & White Engineering Co., which was in military construction work for the U. S. government during the war.

NSPE names P. H. Robbins as executive director

Paul H. Robbins of New York City has been named executive director of the National Society of Professional Engineers, taking over his duties at the society's Washington, D. C., headquarters late in May.

A native of Syracuse, N. Y., Mr. Robbins is a civil engineering graduate of Syracuse University and of the Massachusetts Institute of Technology. After teaching engineering at Cooper Union, New York University and the University of Maine, he spent a year and a half with the Pittsburgh Bridge and Iron Works, and obtained extensive experience in highway construction. He joined the service of New York City in 1941 as a full time consultant on engineering training in the city's division of training, and left that post two years later to become director of training and employees relations for the New York Port of Embarkation and consultant on training to the office of the Chief of Transportation, U. S. Army.

CONSTRUCTION ACTIVITY

As Reported this week to... *Engineering News-Record*

CONTRACT VOLUME

Continental U. S. Only
(Thousands of Dollars)

	Week of June 6 1946	Cumulative 1946 (23 wks.)	Cumulative 1945 (23 wks.)
Federal	$8,740	$257,510	$419,500
State & Mun.	53,590	551,987	104,506
Total Public	$62,330	$809,497	$524,006
Total Private	119,838	1,449,388	204,520
U. S. Total	$182,168	$2,258,885	$728,526

WHERE CONSTRUCTION ACTIVITY ORIGINATED THIS WEEK

Type of Work	Dollar Volume (Thousands) This Week	Cumulative 1946 (23 wks.)	Cumulative 1945 (23 wks.)
Waterworks	$1,017	$42,323	$17,304
Sewerage	8,275	35,093	12,817
Bridges	2,041	52,474	11,363
Highways	26,773	313,821	75,211
Earthwork, Waterways	8,052	158,746	15,420
Buildings, Public	14,598	138,301	287,085
Industrial	60,974	478,408	139,475
Commercial	46,852	878,054	35,928
Unclassified	13,586	161,665	133,923

NOTE: Minimum size projects included are: Waterworks and waterway projects, $22,500; other public works, $40,000; industrial buildings, $55,000; other buildings, $205,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1946 (23 wks.)	Cumulative 1945 (23 wks.)
NON-FEDERAL	$454,739	$263,826
Corporate Securities	187,317	75,462
State and Municipal	267,422	167,464
RFC Loans	...	20,900
FEDERAL	158,320	251,010
Total Capital	$613,059	$514,836

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost	May '46	339.69	163.29
Building Cost	May '46	257.25	139.06
Volume	Apr. '46	340	149